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Hallenbergia (*Agaricomycetes*), a new corticioid genus

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Abstract – A new corticioid genus, *Hallenbergia*, and its single species, *H. singularis*, are described from Thimphu, Bhutan.

Key words – Eastern Himalaya, Nawephu, angiosperm host

While conducting a fungal foray in Nawephu of Thimphu, Bhutan, Dhingra made a collection on decaying angiospermous twigs. On the basis of macroscopic and microscopic characters it was compared with similar genera within *Corticiaceae* s.l. (Rattan 1977, Eriksson & Ryvarden 1976, Hjortstam et al. 1987) but could not be assigned to any already known, hence the description of a new genus. Morphological traits show similarities with *Hypochnicium* and *Intextomyces*.

Hallenbergia Dhingra & Priyanka, **gen. nov.**

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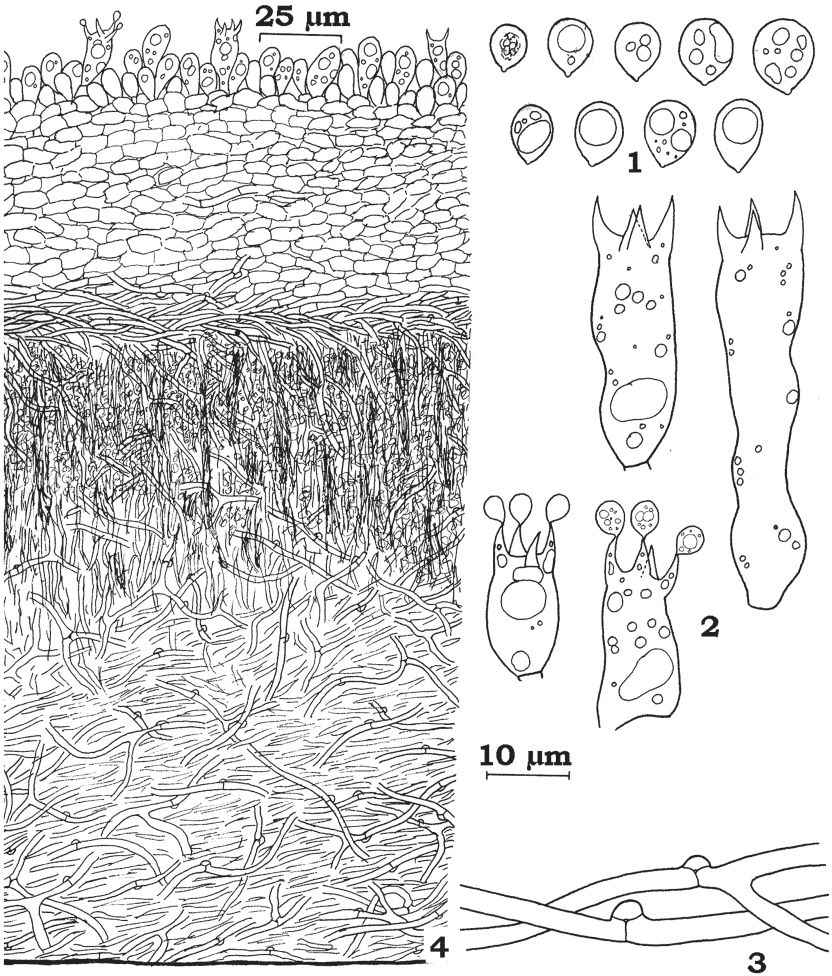
Basidiocarpum resupinatum, adnatum, effusum, ceraceum; hymenium laevigatum, farinaceum, subvitrum, continuum, rimosum in sicco; systema hyphale monomiticum; hyphae tenuitunicatae, septatae, fibulatae; hyphae basilarae irregulariter ramosae, dense intertextae; hyphae in subhymenio parvae-loculosae, compaginatae et apparenter cellulosae; cystidia absum; basidia subclavatae ad suburniformes, 4-sterigmatae; basidiosporae ellipsoidae ad ovoidae vel globosae, laeves, crassitunicatae, cyanophilae, inamyloidae.

Type Species: *Hallenbergia singularis* Dhingra & Priyanka

Etymology: The name of the genus is in the honour of Prof. Nils Hallenberg.

Basidiocarp resupinate, adnate, effused, thin, ceraceous; hymenial surface smooth, farinose under the lens, continuous, some cracks developing on drying; margins not well differentiated. Hyphal system monomitic; generative hyphae thin-walled, septate, clamped; basal hyphae irregularly branched and interwoven into a dense texture; subhymenial hyphae short-celled, compactly packed and appear like a cellular tissue. Cystidia absent. Basidia subclavate to



Figs 1–4. *Hallenbergia singularis*: microscopic structures:
1. basidiospores; 2. basidia; 3. generative hyphae; 4. vertical section through basidiocarp.

suburniform, 4-sterigmate. Basidiospores ellipsoid to ovoid or subglobose, smooth, with thickened walls, cyanophilous, inamyloid.

Remarks—*Hallenbergia* resembles the genus *Hypochnicium* in having broadly ellipsoid to subglobose basidiospores with somewhat thick and cyanophilous walls. There are also affinities with *Intextomyces* in having a densely interwoven texture. The new genus differs from both genera by the peculiar hyphal texture,

Fig. 5. *Hallenbergia singularis*: basidiocarp showing hymenial surface.

with a densely and irregularly branched lower part and a pseudoparenchymatous upper part. Moreover, it differs from *Intextomyces* in the way basidia are formed. In *I. contiguus* (P. Karst.) J. Erikss. & Ryvarden, basidia are formed at the apex of penetrating, sinuous hyphae, while in *H. singularis* the basidia are directly produced from the surface of the pseudoparenchymatic tissue. A sample has been studied by Prof. John Eriksson and Prof. Nils Hallenberg, who both supported the concept of a new genus.

Hallenbergia singularis Dhingra & Priyanka, **sp. nov.** Figs 1–5

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Basidiocarpum resupinatum, adnatum, effusum, ceraceum, ad 250 µm crassum; hymenium laevigatum, farinaceum, subvitrum, continuum, rimosum in sicco; systema hyphale monomiticum; hyphae ad 4.5 µm latae, tenuitunicatae, fibulatae; hyphae basilariae irregulariter ramosae, intricatae in textura compacta; hyphae in subhymenio parvae-loculosae, compaginatae et appariter cellulosae; cystidia absum; basidia 15–33 × 7–10.5 µm, subclavatae ad suburniformes, 4-sterigmatae; basidiosporae 6–9 × 4.5–7.5 µm, latae ellipsoidae ad ovoidae vel globosae, laeve, crassitunicatae, cyanophilae, inamyloidae, un-i vel multiguttatae.

Type: Bhutan, Thimphu, Nawephu, on decaying angiospermous twigs, 31 July 1981, Dhingra 19548 (PAN, **holotype**).

Etymology: The epithet refers to the uncommon and strange combination of microscopic features.

Basidiocarp resupinate, adnate, effused, thin, up to 250 µm thick in section, ceraceous; hymenial surface smooth to farinose under the lens, yellowish gray to orange gray, continuous when fresh, some cracks developing on drying;

margins not well-differentiated. Hyphal system monomitic; generative hyphae up to 4.5 µm wide, thin-walled, septate, clamped; basal hyphae irregularly branched and interwoven into a dense texture, covered in the upper half by some crystalline material, followed by a narrow zone of compactly packed horizontal hyphae; subhymenial hyphae short-celled, compactly packed and appear like a cellular tissue. Cystidia absent. Basidia 15–33 × 7–10.5 µm, at first ellipsoid, then broadly subclavate to suburniform, rarely sinuous, basal clamp not observed, 4-sterigmate, with oily contents; sterigmata up to 7 µm long; a new basidium generally takes the place of a decomposed basidium. Basidiospores 6–9 × 4.5–7.5 µm, broadly ellipsoid to ovate or subglobose, smooth, somewhat thick-walled, cyanophilous, inamyloid, with one large guttule or many small oil drops.

Remarks—As mentioned above *Hallenbergia singularis* is superficially similar to *Intextomyces contiguus*. The latter species is easily distinguished by smaller spores and basidia.

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Literature cited

Eriksson J, Ryvarden L. 1976. The *Corticiaceae* of North Europe – IV. Fungiflora, Oslo. pp. 549–886.

Hjortstam K, Larsson KH, Ryvarden L. 1987. The *Corticiaceae* of North Europe – I. Fungiflora, Oslo. pp. 1–59.

Rattan SS. 1977. The resupinate *Aphyllophorales* of the North Western Himalayas. Bibliotheca Mycologica 60: 1–427.